

The X-ray astronomy satellite ASTRO-H, being developed under the collaboration among JAXA, NASA's GSFC and ESA, will have two Soft X-ray Telescopes (SXTs), among other instruments onboard, with a sensitive energy band below 12 keV. One is for an X-ray microcalorimeter detector and the other for a X-ray CCD detector. The SXT uses a conically approximated Wolter I grazing incidence optic implemented by thin aluminum foil substrates with thickness of 0.152, 0.229, and 0.305 mm. It is similar to the Suzaku XRT, but with larger diameter (45 cm) and longer focal length (5.6 m). Goal of the angular resolution and effective area are 1 arcmin and 390 cm^2 at 6 keV, respectively. We made several improvements from Suzaku to ASTRO-H, such as thicker substrates, more forming mandrels, thinner epoxy layer for replication, stiffer housings, precise alignment bars, etc. With all these changes, we have fabricated the engineering test unit of the SXT. In this paper, we will discuss all the changes made, their effects, and report X-ray performance of the SXT test unit. An angular resolution of the test unit was measured at new Goddard X-ray calibration facility (100 m X-ray beamline) and was found to be 1.1 arcmin. We will also discuss further improvements toward the flight unit to be delivered to JAXA in 2012.